

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A chemical luminescence method using a biochemical analysis unit, comprising the steps of:

~~i) obtaining a biochemical analysis unit provided with a plurality of porous adsorptive regions, to which ligands or receptors have been bound respectively,~~

~~ii) subjecting a labeled receptor or a labeled ligand, which has been labeled with a labeling substance, to specific binding with the ligands or the receptors, each of which has been bound to one of a plurality of the porous adsorptive regions of the biochemical analysis unit, the labeled receptor or the labeled ligand being thereby specifically bound to at least one of the ligands or at least one of the receptors,~~

~~iii) subjecting an enzyme-labeled antibody to specific binding with the labeled receptor or the labeled ligand, which has been specifically bound to at least one of the ligands or at least one of the receptors,~~

~~iv) causing a chemical luminescence substrate to undergo a reaction with the enzyme-labeled antibody, which has been specifically bound to the labeled receptor or the labeled ligand, and~~

~~v) respectively spotting the receptors or ligands onto a surface of the biochemical analysis unit provided with each of the plurality of porous adsorptive regions and wherein the reaction liquid containing the enzyme-labeled antibody is forced to flow in a direction transverse~~

to said surface and into an interior of each of the porous adsorptive regions of the biochemical analysis unit and exit on the other side of each of the porous adsorptive regions thereby flowing through each of the porous adsorptive regions such that the reaction liquid containing the enzyme-labeled antibody is pumped through the biochemical analysis unit with the plurality of the porous adsorptive regions and exits on another side of the biochemical analysis unit,

wherein, at a time at which the enzyme-labeled antibody is subjected to the specific binding with the labeled receptor or the labeled ligand, which has been specifically bound to at least one of the ligands or at least one of the receptors, a reaction liquid containing the enzyme-labeled antibody is forcibly caused to flow such that the reaction liquid containing the enzyme-labeled antibody flows across each of the porous adsorptive regions of the biochemical analysis unit and through the biochemical analysis unit and exits on other side of the biochemical analysis unit.

2. (previously presented): The method according to claim 1,

wherein, after the reaction liquid containing the enzyme-labeled antibody has been forcibly caused to flow such that the reaction liquid flows across each of the porous adsorptive regions of the biochemical analysis unit, the forcible flowing is ceased during a period of time longer than the time during which the reaction liquid containing the enzyme-labeled antibody has been forcibly caused to flow.

3. (currently amended): A chemical luminescence method using a biochemical analysis unit, comprising:

~~i) obtaining a biochemical analysis unit provided with a plurality of porous adsorptive regions, to which ligands or receptors have been bound respectively,~~

~~iii) subjecting a labeled receptor or a labeled ligand, which has been labeled with a labeling substance, to specific binding with the ligands or the receptors, each of which has been bound to one of the a plurality of porous adsorptive regions of the biochemical analysis unit, the labeled receptor or the labeled ligand being thereby specifically bound to at least one of the ligands or at least one of the receptors,~~

~~iiii) subjecting an enzyme-labeled antibody to specific binding with the labeled receptor or the labeled ligand, which has been specifically bound to at least one of the ligands or at least one of the receptors, and~~

~~iiiv) causing a chemical luminescence substrate to undergo a reaction with the enzyme-labeled antibody, which has been specifically bound to the labeled receptor or the labeled ligand, and~~

~~iv) respectively spotting the labeled receptor or the labeled ligand onto a surface of the biochemical analysis unit provided with the plurality of porous adsorptive regions,~~

wherein, at a time at which the labeled receptor or the labeled ligand having been labeled with the labeling substance is subjected to the specific binding with the ligands or the receptors, each of which has been bound to one of the porous adsorptive regions of the biochemical analysis unit, a reaction liquid containing the labeled receptor or the labeled ligand, which has been labeled with the labeling substance, is forcibly caused to flow in a direction transverse to said surface and such that the reaction liquid containing the labeled receptor or the labeled ligand flows across each of the porous adsorptive regions of the biochemical analysis unit and through

the biochemical analysis unit with the plurality of the porous adsorptive regions and exits on another side of the biochemical analysis unit,

wherein, at a time at which the enzyme-labeled antibody is subjected to the specific binding with the labeled receptor or the labeled ligand, which has been specifically bound to at least one of the ligands or at least one of the receptors, a reaction liquid containing the enzyme-labeled antibody is forcibly caused to flow such that the reaction liquid containing the enzyme-labeled antibody flows across each of the porous adsorptive regions of the biochemical analysis unit and through the biochemical analysis unit and exits on other side of the biochemical analysis unit; and

~~further comprising respectively spotting the receptors or ligands onto each of the plurality of porous adsorptive regions.~~

4. (original): A method as defined in Claim 3 wherein, after the reaction liquid containing the enzyme-labeled antibody has been forcibly caused to flow such that the reaction liquid flows across each of the porous adsorptive regions of the biochemical analysis unit, the forcible flowing is ceased during a period of time longer than the time during which the reaction liquid containing the enzyme-labeled antibody has been forcibly caused to flow.

5-14. (canceled).

15. (previously presented): A method as defined in Claim 3, wherein the reaction liquid containing the labeled receptor or the labeled ligand is forced to flow into an interior of each of the porous adsorptive regions of the biochemical analysis unit.

16. (previously presented): A method as defined in Claim 3, further comprising photoelectrically detecting the bound labeled receptor or the labeled ligand in the plurality of porous adsorptive regions of the biochemical analysis unit.

17. (canceled).

18. (previously presented): A method as defined in Claim 3, wherein the reaction liquid containing the enzyme-labeled antibody is forced to flow into an interior of each of the porous adsorptive regions of the biochemical analysis unit.

19. (previously presented): A method as defined in Claim 3, wherein the reaction liquid containing the labeled receptor or the labeled ligand flows across each of the porous adsorptive regions of the biochemical analysis unit at a different time from when the other reaction liquid containing the enzyme-labeled antibody flows across each of the porous adsorptive regions of the biochemical analysis unit.

20. (new): The method as defined in Claim 3, further comprising fixing the receptors or ligands to each of the plurality of porous adsorptive regions using ultraviolet light.

21. (new): The method as defined in Claim 3, further comprising immovably fixing the obtained biochemical analysis unit inside the receiving vessel so that the biochemical analysis unit, with the plurality of the porous adsorptive regions that are immobile, is fixed in same place during the forcible flow of the reaction liquid containing the labeled receptor or the labeled ligand and during the forcible flow of the reaction liquid containing the enzyme-labeled antibody,

wherein the reaction liquid containing the enzyme-labeled antibody is pumped across each of the immobile porous adsorptive regions of the biochemical analysis unit where the porous adsorptive regions do not contact each other.

22. (new): The method as defined in Claim 21, wherein the reaction liquid containing the labeled receptor or the labeled ligand and the reaction liquid containing the enzyme-labeled antibody, each enters the reaction vessel on same side, flow through the reaction vessel including across and through the analysis unit and exits the reaction vessel at a same opposite side of the reaction vessel.

23. (new): The method as defined in Claim 3, further comprising forcibly flowing through the analysis unit cleaning fluid that peels off and removes labeled receptor or the labeled ligand that is unbound to the ligands or receptors in the analysis unit.

24. (new): The method as defined in Claim 3, further comprising filtering the enzyme-labeled antibody to be smaller than pore diameter of each of the porous adsorptive regions.

25. (new): The method as defined in Claim 3, further comprising inserting the analysis unit that is a plate-like member with the plurality of porous adsorptive regions that are immobile, into the reaction vessel and fixedly attaching the analysis unit to an interior surface of the reaction vessel, wherein the porous adsorptive regions are isolated from each other.

26. (new): The method as defined in Claim 1, further comprising inserting the analysis unit that is a plate-like member with the plurality of porous adsorptive regions that are immobile, into the reaction vessel and fixedly attaching the analysis unit to an interior surface of the reaction vessel, wherein the reaction liquid containing the enzyme-labeled antibody is pumped across each of the porous adsorptive regions of the biochemical analysis unit where the porous adsorptive regions do not contact each other.

27. (new): The method as defined in Claim 1, further comprising immovably fixing the obtained biochemical analysis unit inside the receiving vessel so that the biochemical analysis unit is fixed in same place during the forcible flow of the reaction liquid containing the labeled receptor or the labeled ligand and during the forcible flow of the reaction liquid containing the enzyme-labeled antibody.